

CLAIMS

1. A heat treated coated article comprising a coating supported by a glass substrate, the coating comprising:

a first layer comprising silicon nitride which is located on and directly contacts a surface of the glass substrate;

a first layer comprising zinc oxide located over at least the first layer comprising silicon nitride;

a first infrared (IR) reflecting layer comprising silver located over and contacting the first layer comprising zinc oxide;

a second layer comprising silicon nitride located over at least the first IR reflecting layer;

a second layer comprising zinc oxide located over at least the second layer comprising silicon nitride;

a second IR reflecting layer comprising silver located over and contacting the second layer comprising zinc oxide;

a layer comprising an oxide of Ni and/or Cr located over and contacting the second IR reflecting layer;

at least another dielectric layer located over at least the layer comprising an oxide of Ni and/or Cr; and

wherein the coated article following heat treatment, measured monolithically, has a sheet resistance of less than or equal to 3.0 ohms/square and a visible transmission of at least 78%.

2. The coated article of claim 1, wherein the coated article following heat treatment, measured monolithically, has a sheet resistance of less than or equal to 2.5 ohms/square and a visible transmission of at least 79%.

3. The coated article of claim 1, wherein the coated article following heat treatment, measured monolithically, has a sheet resistance of less than or equal to 2.1 ohms/square and a visible transmission of at least 80%.

4. The coated article of claim 1, wherein the coated article following heat treatment, measured monolithically, has a haze value of less than or equal to 0.40.

5. The coated article of claim 1, wherein the coated article following heat treatment, measured monolithically, has a haze value of less than or equal to 0.35.

6. The coated article of claim 1, wherein the coated article following heat treatment, measured monolithically, has a haze value of less than or equal to 0.30.

7. The coated article of claim 1, wherein at least one of the first and second layers comprising silicon nitride is Si-rich so as to be represented by Si_xN_y , where x/y is from 0.8 to 1.4.

8. The coated article of claim 1, wherein said another dielectric layer, located over at least the layer comprising an oxide of Ni and/or Cr, comprises a first layer comprising tin oxide and another layer comprising silicon nitride which is an outermost layer of the coating.

9. The coated article of claim 1, further comprising a layer comprising tin oxide located between the first IR reflecting layer and the second layer comprising silicon nitride.

10. The coated article of claim 1, further comprising a layer comprising an oxide of Ni and/or Cr located directly on and contacting the first IR reflecting layer.

11. The coated article of claim 1, wherein at least one of the first and second layers comprising silicon nitride includes from 1-10% aluminum.

12. The coated article of claim 1, wherein at least one of the first and second layers comprising zinc oxide includes from 1-10% aluminum.

13. The coated article of claim 1, wherein said layer comprising an oxide of Ni and/or Cr includes an oxide of NiCr and is from 30-45 Å thick.

14. The coated article of claim 1, wherein said second layer comprising silicon nitride is from 90-150 Å thick.

15. A heat treated coated article comprising a coating supported by a glass substrate, the coating comprising:

a first dielectric layer on the substrate;

a first infrared (IR) reflecting layer located over at least the first dielectric layer;

a second dielectric layer located over at least the first IR reflecting layer;

a second IR reflecting layer located over at least the second dielectric layer;

a third dielectric layer located over at least the second IR reflecting layer; and

wherein the coated article following heat treatment, measured monolithically, has a sheet resistance of less than or equal to 2.5 ohms/square and a visible transmission of at least 78%.

16. The coated article of claim 15, wherein the coated article following heat treatment, measured monolithically, has a sheet resistance of less than or equal to 2.1 ohms/square and a visible transmission of at least 79%.

17. The coated article of claim 15, wherein the coated article following heat treatment, measured monolithically, has a visible transmission of at least 80%.

18. The coated article of claim 15, wherein the coated article following heat treatment, measured monolithically, has a haze value of less than or equal to 0.35.

19. The coated article of claim 15, wherein the coated article following heat treatment, measured monolithically, has a haze value of less than or equal to 0.30.

20. The coated article of claim 15, wherein at least one of the dielectric layers comprises silicon nitride which is Si-rich so as to be represented by Si_xN_y , where x/y is from 0.8 to 1.4.

21. The coated article of claim 15, wherein said first and second IR reflecting layers are located on and contacting first and second layers comprising zinc oxide, respectively.

22. A laminated vehicle windshield including first and second glass substrates laminated to one another, at least the first glass substrate supporting a multi-layered coating, the coating comprising:

- a first layer comprising silicon nitride which is located on and directly contacts a surface of the first glass substrate;

- a first layer comprising zinc oxide located over at least the first layer comprising silicon nitride;

- a first infrared (IR) reflecting layer comprising silver located over and contacting the first layer comprising zinc oxide;

- a second layer comprising silicon nitride located over at least the first IR reflecting layer;

- a second layer comprising zinc oxide located over at least the second layer comprising silicon nitride;

- a second IR reflecting layer comprising silver located over and contacting the second layer comprising zinc oxide;

- a layer comprising an oxide of Ni and/or Cr located over and contacting the second IR reflecting layer;

- at least another dielectric layer located over at least the layer comprising an oxide of Ni and/or Cr; and

- wherein the laminated vehicle windshield, following heat treatment of

at least the first glass substrate, has a sheet resistance of less than or equal to 3.0 ohms/square and a visible transmission of at least 76.0%.

23. The laminated vehicle windshield of claim 22, wherein the laminated vehicle windshield, following heat treatment of at least the first glass substrate, has a sheet resistance of less than or equal to 2.5 ohms/square and a visible transmission of at least 77.0%.

24. The laminated vehicle windshield of claim 22, wherein the laminated vehicle windshield, following heat treatment of at least the first glass substrate, has a sheet resistance of less than or equal to 2.1 ohms/square and a visible transmission of at least 77.5%.

25. The laminated vehicle windshield of claim 22, wherein the windshield, following heat treatment of at least the first glass substrate, has a haze value of less than or equal to 0.40.

26. The laminated vehicle windshield of claim 22, wherein the windshield, following heat treatment of at least the first glass substrate, has a haze value of less than or equal to 0.36.

27. The laminated vehicle windshield of claim 22, wherein at least one of the first and second layers comprising silicon nitride is Si-rich so as to be represented by Si_xN_y , where x/y is from 0.8 to 1.4.

28. The laminated vehicle windshield of claim 22, further comprising a layer comprising tin oxide located between the first and second IR reflecting layers.

29. A laminated vehicle windshield including first and second glass substrates laminated to one another, at least the first glass substrate supporting a multi-layered coating, the coating comprising:

a first dielectric layer on the first glass substrate;

a first infrared (IR) reflecting layer located over at least the first dielectric layer;
a second dielectric layer located over at least the first IR reflecting layer;
a second IR reflecting layer located over at least the second dielectric layer;
a third dielectric layer located over at least the second IR reflecting layer; and

wherein the laminated vehicle windshield, following heat treatment of each of the first and second glass substrates, has a sheet resistance via the coating of less than or equal to 2.5 ohms/square, and has a visible transmission of at least 77%.

30. The laminated vehicle windshield of claim 29, wherein the laminated vehicle windshield, following heat treatment of each of the first and second glass substrates, has a visible transmission of at least 77.5% and a haze value of less than or equal to 0.40.

31. The laminated vehicle windshield of claim 29, wherein the laminated vehicle windshield, following heat treatment of each of the first and second glass substrates, has a haze value of less than or equal to 0.35.